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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/475,696	12/30/1999	DARRYL L. DEFREESE	A-6307	6730

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SCIENTIFIC-ATLANTA, INC.
INTELLECTUAL PROPERTY DEPARTMENT
5030 SUGARLOAF PARKWAY
LAWRENCEVILLE, GA 30044

EXAMINER

PICH, PONNOREAY

ART UNIT	PAPER NUMBER
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2135

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	05/01/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 05/01/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOmail@sciatl.com

Office Action Summary

Application No.

09/475,696

Applicant(s)

DEFREESE ET AL.

Examiner

Ponnoreay Pich

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 72-84 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 72-84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 72-84 are pending. It is noted that the set of claims submitted on 2/20/2007 does not comply with 37 CFR 1.121(c) since a complete listing of the claims were not presented. However, it is clear from record that claims 1-71 were cancelled, thus the omission of claims 1-71 from the listing of claims is excused for this office action. Applicant is respectfully advised to fully comply with 37 CFR 1.121 in future correspondences.

Response to Amendment

Applicant's amendments were fully noted. Any objections or rejections not repeated below for record are withdrawn due to applicant's amendments.

Response to Arguments

Applicant's arguments were also fully noted. It is noted that with respect to applicant's interview summary, the content of the summary are correct. During the interview, the examiner and applicant's representative discussed the claimed invention and various terms used in the application. No agreement was reached as to whether or not one of ordinary skill would understand the meaning of certain terms which were not explicitly defined, i.e. entitlement unit number, based on what is disclosed in the specification when viewed as a whole. No specific amendment proposal to overcome the current prior art of record was discussed during the interview as applicant's representative indicated that he would like to confer with the client further. The objections to claim 72 and rejection of the claims under 101 are withdrawn due to applicant's amendments.

With respect to the remarks made under section V and VI of remarks submitted, the arguments directed towards amended claims were fully considered, but are moot in view of new rejections presented below. It is noted that one of the basis of applicant's argument that the prior art of record does not teach the amended limitations is that the definition of "entitlement unit number" as being applied by the examiner is not the correct definition and that it would be clear to one of ordinary skill in the art what definition should apply based on applicant's specification when viewed as a whole. The examiner respectfully disagrees that the definition of "entitlement unit number" would be clear to one of ordinary skill in the art after having considered applicant's specification as a whole. While it is recognized that a patentee can act as his/her own lexicographer to specifically define terms of a claim, the written description must clearly define a claim term, see *Hormone Research Foundation Inc. v. Genentech Inc.*, 904 F.2d 1558, 15 USPQ2d 1039 (Fed. Cir. 1990). Applicant's specification discusses what an entitlement unit number may be, but never defines what it is even though it is not a commonly used term in the art. Even in presenting arguments that the specification clearly define "entitlement unit number", applicant is only able to state what the term may be, not what it actually means. None of the sections of the specification pointed to by applicant defines what the term is. Absent an explicit definition of "entitlement unit number", which is not a commonly used term in the art, and because the specification when viewed as a whole would not make clear to one of ordinary skill in the art what is meant to be encompassed by the term, the examiner can only apply the broadest,

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reasonable interpretation of everything that the term may encompass based on what is recited in the claims.

Applicant's other basis that the prior art of record does not teach the amended limitations is that the prior art does not teach the entitlement unit number carried in a payload of an entitlement control message. However, as evidenced by Wasilewski (US 5,420,866), the format and content of an ECM is not defined and it is left to the individual vendors and equipment manufacturers to define an associated ECM format (col 4, lines 26-35). Thus, any packet could reasonably be considered an ECM packet. The numbers that the examiner has interpreted as being entitlement unit numbers are disclosed by Urakoshi as being transmitted from a satellite to the receiver (col 8, lines 15-23), thus are carried in packets that could be considered ECM packets. Note further that as evidence by what is taught by Wasilewski, because there is no standard format of what is an ECM packet, a single system may contain ECM packets of different formats from one another.

As per claims 73, 77-78, 80, and 83-84, applicant argues that it would not have been obvious to one of ordinary skill in the art to combine the teachings of Urakoshi and Wasilewski to arrive at the claimed invention. Applicant states that the examiner's conclusion of obviousness is based on hindsight reasoning. In response to this allegation, the examiner respectfully submits that it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does

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not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The remaining arguments made in section VI of remarks submitted are directed towards dependency. As the parent claims are not allowable, the dependency arguments are traversed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 72, 74-76, 79, and 81 are rejected under 35 U.S.C. 102(e) as being anticipated by Urakoshi et al (US 6,067,564) as evidenced by Wasilewski (US 5,420,866).

Claim 72:

Urakoshi discloses:

1. Associating services with entitlement unit numbers, an entitlement unit number corresponding to a particular package of bundled services (Fig 11, item 111; col 5, lines 3-13; and col 7, lines 40-42).
2. Providing the terminal with an electronic program guide that associates universal service identification numbers to services (Fig 2; Fig 12; and col 8, lines 49-55).
3. Providing the terminal with an authorized entitlement unit table that translates universal service identification numbers to entitlement unit numbers (Fig 1, item 111 and Fig 16-17).
4. Providing the terminal with an authorized entitlement unit number (Fig 3 and col 4, lines 3-16), wherein responsive to the a user selecting a given service, the terminal determines whether the terminal is authorized to access the given service using the electronic program guide, the entitlement unit table, and the authorized entitlement unit number (Fig 5 and col 5, lines 3-49) and displays the given service (col 2, lines 9-17).

The examiner interprets an entitlement unit number as any number corresponding to a particular package of bundled services as is defined in the claim. In Figure 11, item 111 shows several numbers which can fit this definition including data number, channel number, start time, ending time, and price. As per the limitation "wherein the entitlement unit number is carried in a payload of an entitlement control message (ECM)", note that as evidenced by Wasilewski, the format of an ECM packet is not defined by any standard and it is up to individual vendors to assign their own

format (col 4, lines 26-35). Each of the numbers shown in Figure 11, item 111 of Urakoshi which could be interpreted as an entitlement unit number are carried in the payloads transmitted from a satellite to a receiver (col 8, lines 15-23). The payloads transmitted from the satellite can be interpreted as ECM payloads carrying an entitlement unit number.

Claim 74:

Urakoshi further discloses wherein a given entitlement unit number is associated with a plurality of services (Fig 5 and col 5, lines 3-49). A user's monthly charge limit can be used on any number of services.

Claim 75:

Urakoshi further discloses wherein the terminal is authorized for a first group of services, the first group of services having a first entitlement unit number (Fig 3 and col 4, lines 3-24), and further including the step of: providing the terminal with a second authorized entitlement unit number, wherein the second authorized entitlement unit number is associated with a second group of services (Fig 3 and col 4, lines 3-24).

Multiple users have their own account on the terminal and each have their own authorized entitlement unit number, i.e. monthly budget. Each person can use their budget as they like to purchase whichever show they like.

Claim 76:

The limitation of wherein the given service is associated with both the first authorized entitlement unit number and the second authorized unit number is inherent to Urakoshi's invention. More than one person is able to purchase the same

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service/program. As the first and second authorized unit numbers are the monthly budgets of a first and second user of Urakoshi's terminal, the given service is associated with both numbers as both a first and second user can use their monthly budget to purchase the given service.

Claim 79:

Urakoshi discloses:

1. Receiving an electronic program guide that associates universal service identification numbers to services (col 3, lines 35-50).
2. Receiving an entitlement unit table that translates universal service identification numbers to entitlement unit numbers, an entitlement unit number corresponding to a particular package of bundled services (Fig 1, item 111; Fig 16-17; and col 8, lines 15-24).
3. Receiving an authorized entitlement number (Fig 3 and col 4, lines 3-16).
4. Receiving user input for a given service (col 5, lines 3-13 and col 7, lines 12-15).
5. Determining whether the terminal is authorized to access the given service using the electronic program guide, the entitlement unit table, and the authorized entitlement unit number (Fig 5 and col 5, lines 3-49).
6. Displaying the given service if the terminal is authorized to access it (col 2, lines 9-17).

As per the limitation "wherein the entitlement unit number is carried in a payload of an entitlement control message (ECM)", note that as evidenced by Wasilewski, the

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format of an ECM packet is not defined by any standard and it is up to individual vendors to assign their own format (col 4, lines 26-35). Each of the numbers shown in Figure 11, item 111 of Urakoshi which could be interpreted as an entitlement unit number are carried in the payloads transmitted from a satellite to a receiver (col 8, lines 15-23). The payloads transmitted from the satellite can be interpreted as ECM payloads carrying an entitlement unit number.

Claim 81:

Urakoshi further discloses storing the authorized entitlement unit number in a memory (col 4, lines 25-41).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 73, 80, 77-78, and 83-84 rejected under 35 U.S.C. 103(a) as being unpatentable over Urakoshi et al (US 6,067,564) as evidenced by Wasilewski (US 5,420,866) and in view of Wasilewski (US 5,420,866).

Claims 73 and 80:

Urakoshi does not explicitly disclose wherein the authorized entitlement unit number is provided to the terminal in an entitlement management message (EMM). However, Wasilewski discloses transmitting information for controlling access to

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different programs or tiers of programs to a terminal via an entitlement management message (col 4, line 55-col 5, line 12). How much a user has to pay to access a given program is information for controlling access to different programs or tiers of programs.

At the time applicant's invention was made, it would have been obvious to one skilled in the art to modify Urakoshi's invention according to the limitations recited in claim 73 in light of Wasilewski's teachings. One skilled would have been motivated to do so because Wasilewski discloses that the MPEG-2 Systems Committee recommended that program access information should be transmitted to a terminal via EMM's (col 4, lines 55-67). Note that one of ordinary skill typically would want to design systems that conform to agreed upon standards. An authorized entitlement unit number is program access information.

Claim 77:

As per claim 77, Urakoshi discloses the terminal confirms that the terminal is authorized to access the given service using an entitlement unit number and the authorized entitlement unit number (Fig 5 and col 5, lines 3-49). Urakoshi does not explicitly disclose:

1. Providing the services in a stream of packets.
2. Multiplexing entitlement control messages for a given service into the stream of packets, wherein each entitlement control message includes a second entitlement unit number and the second entitlement unit number is used to determine if the terminal is authorized to access the given service.

However, Wasilewski discloses providing the services in a stream of packets (Fig 2). Wasilewski further discloses multiplexing entitlement control messages (ECM's) for a given service into the stream of packets (Fig 3B and 7A), wherein each entitlement control message includes a second entitlement unit number and the second entitlement unit number is used to determine if the terminal is authorized to access the given service (col 3, lines 7-12 and col 14, lines 5-44). At the time applicant's invention was made, it would have been obvious to one skilled in the art in light of Wasilewski's teachings to modify Urakoshi's invention according to the limitations recited in claim 77. One skilled in the art would have been motivated to do so because cable systems based on MPEG streams were commonly used at the time applicant's invention was made and incorporating Wasilewski's teachings would allow Urakoshi's terminal to be used with MPEG based cable systems. Note that Urakoshi discloses his invention processes MPEG signals sent from a service provider (col 3, lines 15-26).

Claim 78:

Urakoshi discloses a plurality of entitlement unit numbers (Fig 11, item 111). Further as evidenced by Wasilewski, the format of an ECM is not specified (col 4, lines 26-35). Each of the numbers shown in Figure 11, item 111 of Urakoshi which could be interpreted as a plurality of entitlement unit number are carried in the payloads transmitted from a satellite to a receiver (col 8, lines 15-23). The payloads transmitted from the satellite can be interpreted as ECM payloads carrying entitlement unit numbers, thus the plurality of entitlement unit number seen in Figure 11, item 11 are included in a plurality of ECM's.

Claim 83:

As per the limitation of wherein each ECM includes an entitlement unit number that is carried in the payload of the ECM, the limitation was previously discussed as being disclosed by Urakoshi as evidenced by Wasilewski (see discussion of claims 72, 29, and 78 for example).

Urakoshi further discloses responsive to determining that the terminal is authorized to access the given service, further includes the step of confirming that the terminal is authorized to access the given service based upon the entitlement unit number and the authorized entitlement unit number (col 5, lines 3-49).

Urakoshi does not explicitly disclose the following limitations which are disclosed by Wasilewski:

1. Receiving a stream of packets, the streams of packets including packets comprising the given service and entitlement control messages (ECMs) for the given service (Fig 6 and col 13, lines 41-43, and col 14, lines 5-9).
2. Responsive to determining that the terminal is authorized to access the given service, further including the steps of:
 - a. Parsing ECMs for the given service from the stream of packets (col 14, lines 5-9).
 - b. Responsive to confirming that the terminal is authorized further including the steps of:
 - i. Recovering control words from the received ECM's (col 9, lines 41-47 and col 15, lines 6-14).

- ii. Decrypting the given service using the recovered control words (col 9, lines 41-47 and col 15, lines 6-14).
- iii. Displaying the given service (col 15, lines 6-14).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Urakoshi and Wasilewski according to the limitations recited in claim 83. One of ordinary skill would have been motivated to combine the two teachings for the same reasons discussed in claim 80.

Claim 84:

As per the limitation wherein the entitlement control message includes a plurality of entitlement unit numbers, it is similar to the limitation recited in claim 78 and is rejected for the same reasons. Urakoshi further discloses the step of confirming that the terminal is authorized to access the given service further includes the step of: comparing each of the entitlement unit numbers with the authorized entitlement unit number until one of the entitlement unit numbers matches the authorized entitlement unit number, wherein the terminal is authorized to access the given service if there is a match (col 8, lines 42-55).

Claim 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over Urakoshi et al (US 6,067,564) as evidenced by Wasilewski (US 5,420,866) in view of Chaney (US 6,035,037).

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Claim 82:

Urakoshi does not explicitly disclose wherein the memory is included in a secure microprocessor having input/output terminals, and the secure microprocessor is characterized by the memory being observable at the input/output terminals. However, Chaney discloses the memory is included in a secure microprocessor having input/output terminals (Fig 4 and col 6, lines 56-59) and the secure microprocessor is characterized by the memory being unobservable at the input/output terminal (col 9, lines 1-4). It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Urakoshi's invention with Chaney's teachings according to the limitations recited in claim 82. One of ordinary skill would have been motivated to do so as Chaney discloses it would ensure that unauthorized users do not access entitlement data (col 9, lines 1-4).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is 571-272-7962. The examiner can normally be reached on 9:00am-4:30pm Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ponnoreay Pich
Examiner
Art Unit 2135


KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100